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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,063	08/20/2001	William D. Goodman	Verizon-10	6764
32127	7590	01/25/2006	EXAMINER	
VERIZON CORPORATE SERVICES GROUP INC. C/O CHRISTIAN R. ANDERSEN 600 HIDDEN RIDGE DRIVE MAILCODE HQEO3H14 IRVING, TX 75038			PEACHES, RANDY	
			ART UNIT	PAPER NUMBER
			2686	
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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/933,063	GOODMAN, WILLIAM D.
	Examiner	Art Unit
	Randy Peaches	2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 August 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### Examiner's Statement of Reason

The Examiner acknowledges the Applicant's arguments regarding **claims 1-20**. In response, the Examiner has issued a Non-final Office Action to re-open prosecution.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. ***Claims 1-3, 13-17 and 20*** are rejected under 35 U.S.C. 102(e) as being anticipated by Suojasto (U.S. Patent Number 6,487,413 B1) in view of Basson et al. (U.S. Patent Publication Number 2002/0146978 A1).

Regarding **claim 1**, Suojasto teaches of a method of compiling statistics (location update request/messages) on mobile stations, which reads on claimed "processing active wireless device statistics", the method comprising:

- receiving said statistics on the number of active mobile stations, as taught in column 2 lines 59-65, in a least one area, which reads on claimed "communication cell". See column 2 lines 6-20, 26-31, 61-65;

- estimating the number said mobile stations, which reads on claimed "people", both passive and active mobile stations (see column 2 lines 28-39, 61-65), in a geographical area, which reads on claimed "region", if interest from the received statistics on the number of said active mobile stations.

To further support the Examiner's position of how the passive and active mobile can be used to estimate the number of people in a geographical location, the Examiner would like to bring to the Applicant's attention Basson et al. Basson teaches in paragraph [0026] wherein it would be possible to determine the number of people in an area by using a cell phone that people carry to report how many people are located in a particular region.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojaisto (U.S. Patent Number 6,487,413 B1) to include Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in order to estimate the number of people in a geographical location at a given time.

Regarding **claim 2**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 1**, Sujasto discloses wherein receiving statistics include:

- receiving information from a plurality of different communication cells grouped into location areas (FIGURE 2), said information including at a first count corresponding to a number of said active mobile stations in a first communication cell and a second count corresponding to the number of said active mobile

stations in a second communication cell. See columns 6 and 7 lines 64-67 lines 1-4, respectively.

Regarding **claim 3**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 2**, Sujasto discloses wherein estimating the number of people in a said geographical area of interest includes:

- correlating the said first and second counts corresponding to the first and second communications cell, respectively, to the said geographical area of interest to generate a set of said location areas, which reads on claimed "target area", statistics including an estimate of the number of said active mobile stations in the said area of interest. See column 2 lines 39-47.

Regarding **claim 13**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 1**, Sujasto discloses wherein receiving statistics on a number of said active mobile stations include:

- receiving said active mobile station statistics corresponding to different points in time. See column 4 lines 8-16 lines 30-35; and
- generating, from the received said active mobile stations statistics corresponding to at least two different points in time, as disclosed in column 6 lines 20-29, information on the capacity, which reads on claimed "flow of traffic", in the said geographical area of interest.

Regarding **claim 14**, Suojasto teaches of a method of generating a traffic flow report, the method comprising the steps of:

- collecting the said active mobile stations statistics from a cell, which reads on claimed "communication cell" over predetermined intervals, which reads on claimed "period of time". See columns 5 and 6 lines 40-49, 66-67 lines 1-9, respectively; and
- detecting changes in the collected said active mobile stations statistics by taking into consideration both the active and passive mobile stations, which reads on claimed "changes in the collected statistics", as taught in column 6 lines 5-9; and
- generating a report, as disclosed in column 4 lines 30-35, that disclose the traffic capacity based on the said active and passive mobile stations collected statistics.

To further support the Examiner's position of how the passive and active mobile can be used to estimate the number of people in a geographical location, the Examiner would like to bring to the Applicant's attention Basson et al. Basson teaches in paragraph [0026] wherein it would be possible to determine the number of people in an area by using a cell phone that people carry to report how many people are located in a particular region.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in order to estimate the number of people in a geographical location at a given time.

Regarding **claim 15**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 14**, Sujasto discloses wherein detecting changes include at least one of an increase and a decrease in the number of said active mobile stations. Further, Suojasto discloses that within a defined said geographical area, the system monitors the traffic based on the activity of the said mobile stations. The said activity is related to active (a call going on) or passive (no call going on). Therefore, it is inherent that the increase and decreasing of the recorded traffic count is apparent, since the said traffic report is base on both active and passive mobile station with a defined geographical area.

Regarding **claim 16**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 14**, Sujasto discloses wherein detecting changes include changes in that mode of a said mobile station from active to passive, which reads on claimed "identity", being serviced by a cell.

Regarding **claim 17**, Suojasto teaches of an apparatus for estimating the number of mobile stations, which reads on claimed "people", in a geographical area, which reads on claimed "region", the apparatus comprising:

- a control unit (6), which reads on claimed "interface", for receiving a said active mobile station count from at least one communication cell;
- a means for estimating, as taught in column 2 lines 57-65, based on the number of said active mobile station count the number of said mobile station in a said

geographical area including at least a portion of a said communication cell. See column 5 lines 40-49.

To further support the Examiner's position of how the passive and active mobile can be used to estimate the number of people in a geographical location, the Examiner would like to bring to the Applicant's attention Basson et al. Basson teaches in paragraph [0026] wherein it would be possible to determine the number of people in an area by using a cell phone that people carry to report how many people are located in a particular region.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in order to estimate the number of people in a geographical location at a given time.

Regarding **claim 20**, Suojasto teaches in FIGURE 2 column 5 lines 12-13 and claim 5, of a cellular radio system, which reads on claimed "wireless communication system", the system comprising:

- a plurality of base station (BTS1-BTS5), which reads on claimed "wireless communication centers, each said BTS collecting statistical information on the number of said active mobile stations being serviced at a predetermined interval, which reads on claimed "point in time". See column 2 lines 13-38.

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- a control unit (6), coupled to the said BTS, the said control unit receiving the said BTS statistics on the number of said active mobile stations being serviced, the said control unit (6) including: See FIGURE 2.
- means for estimating the number said mobile stations, which reads on claimed "people", both passive and active mobile stations (see column 2 lines 28-39), in a geographical area, which reads on claimed "region", if interest from the received statistics on the number of said active mobile stations.

To further support the Examiner's position of how the passive and active mobile can be used to estimate the number of people in a geographical location, the Examiner would like to bring to the Applicant's attention Basson et al. Basson teaches in paragraph [0026] wherein it would be possible to determine the number of people in an area by using a cell phone that people carry to report how many people are located in a particular region.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in order to estimate the number of people in a geographical location at a given time.

2. **Claims 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Dunn (U.S. Patent Number 5,659,596).

Regarding **claim 11**, Suojasto teaches of a method of processing both active and passive statistics, the method comprising:

- receiving said statistics on the number of active mobile stations, as taught in column 2 lines 59-65, in at least one area, which reads on claimed "communication cell". See column 2 lines 6-20, 26-31, 61-65;
- estimating the number of said mobile stations, which reads on claimed "people", both passive and active mobile stations (see column 2 lines 28-39, 61-65), in a geographical area, which reads on claimed "region", if interest from the received statistics on the number of said active mobile stations.

To further support the Examiner's position of how the passive and active mobile can be used to estimate the number of people in a geographical location, the Examiner would like to bring to the Applicant's attention Basson et al. Basson teaches in paragraph [0026] wherein it would be possible to determine the number of people in an area by using a cell phone that people carry to report how many people are located in a particular region.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) to include Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in order to estimate the number of people in a geographical location at a given time.

However, the combination fails to clearly disclose wherein predicting characteristics of the devices in the geographic region of interest from the type of devices in the geographic region of interest.

Dunn teaches in column 9 lines 38-45 where the local service office is supplied with remote subscriber unit's (RSU) identification code or specification codes identifying the type of device being used, which reads on claim "predicting characteristics of people from the type of device in the geographic region of interest.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Dunn (U.S. Patent Number 5,659,596) in order to provide a means to identify the type communicating device within a cell so that a more accurate means of estimating capacity load within an area is realized.

Regarding **claim 12**, as the combination of Suojasto (U.S. Patent Number 6,487,413 B1), Basson et al. and Dunn (U.S. Patent Number 5,659,596) are made, the combination according to **claim 11**, further discloses wherein Suojasto teaches in column 4 lines 30-35 where a report of the received statistics is generated and sent to the operator of the network.

3. **Claims 4-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view Yang et al (U.S. Patent Number 6,192,243 B1).

Regarding **claim 4**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 3**, the combination fails to teach performing an extrapolating function with said statistics to determine the estimate number of people in the geographic area of interest.

Yang et al discloses in column 2 lines 56-65 an algorithm is used to determine traffic within a cell.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) to include Yang et al (U.S. Patent Number 6,192,243 B1) in order to calculate the number of said mobile stations, which reads on claimed "people", within a geographical area based on the said active and passive statistical information.

Regarding **claim 5**, as the above combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the combination according to **claim 4**, further comprises:

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- generating a report, requested by an operator, as taught by Suojasto in column 4 lines 8-16 lines 30-44, which includes the estimate of the number of said mobile stations in the said geographical area of interest; and
- sending, which reads on claimed "outputting", said report to said operator. See Suojasto column 4 lines 30-35.

Regarding **claim 6**, as the above combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the combination according to **claim 4**, further comprises:

- allows an accurate picture of said mobile stations in a said geographic area from the received said statistics on the number of said active mobile stations. See Suojasto column 4 lines 29-35.

Regarding **claim 7**, as the above combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the combination according to **claim 6**, wherein the said active mobile stations from different cells each at least partially, as seen in Suojasto FIGURE 2, said geographical area of interest are used to accurate picture of said mobile stations. See Suojasto column 3 lines 45-49.

Regarding **claim 8**, as the above combination of Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view of Yang et al (U.S. Patent Number 6,192,243 B1) are made, the combination according to **claim 6**, further comprising:

- generating a report, requested by an operator, as taught by Suojasto in column 4 lines 8-16 lines 30-44, which includes the estimate of the number of said mobile stations in the said geographical area of interest and accurate picture of said mobile stations in a said geographic area from the received said statistics on the number of said active mobile stations. See Suojasto column 4 lines 29-35.

4. **Claims 9-10 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) in view Seraj (U.S. Patent Number 6,535,745 B1).

Regarding **claim 9**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 2**, the combination teaches wherein receiving statistics include:

- receiving information from a plurality of different communication cells grouped into location areas (FIGURE 2), said information including at a first count corresponding to a number of said active mobile stations in a first communication cell and a second count corresponding to the number of said active mobile

stations in a second communication cell. See columns 6 and 7 lines 64-67 lines 1-4, respectively.

However, the combination does not disclose the fact that each count, in regards to the capacity of the network, varies based on the type of device.

Seraj teaches in column 4 lines 19-24, of mobile stations, such as communication Personal Communication Service (PCS) or cellular phones, but also includes computers, PDA's or other wireless terminals. Although, the cited reference of Seraj does not clearly specify that the traffic information, which reads on claimed "count", received from the first and second cells depends on the type of device within the cell, it is obvious that the method of estimating the traffic conditions of a cell takes into consideration the different type of devices being used within that given area and collectively, despite the type of device being used within the cell, gather the said traffic information.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Suojaisto (U.S. Patent Number 6,487,413 B1) and Basson et al. (U.S. Patent Publication Number 2002/0146978 A1) to include Seraj (U.S. Patent Number 6,535,745 B1) in order to obtain the said counts within a first and second cell dependent on the type of said mobile stations.

Regarding **claim 10**, the above combination as the combination of Suojaisto and Basson et al. in view of Seraj (U.S. Patent Number 6,535,745 B1) are made, the combination according to **claim 9**, Seraj teaches where the type of said mobile station can include a

first type as a cellular phone, see column 4 lines 19-27, and a second type can be a personal data assistant (PDA).

Regarding **claim 18**, as the combination of Sujasto and Basson et al. are made, the combination according to **claim 17**, the combination teaches

- wherein means for estimating includes: means for correlating the said active and passive mobile stations to a defined geographical area of interest to generate a set of said location areas statistics including an estimate of the number of said active mobile stations in a said geographical area of interest.

However, the combination fails to teach of obtaining a first and second count corresponding to the first and second cell.

Seraj teaches in column 3 lines 15-32, of receiving traffic statistics from a first and second cell.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify Sujasto and Basson et al. to include Seraj (U.S. Patent Number 6,535,745 B1) to obtain the accurate count of said mobile stations within a first and second communication cell to efficiently estimating the total traffic count within a defined said geographical area.

1. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sujasto, Basson et al., Seraj in further view of Yang et al (U.S. Patent Number 6,192,243 B1).

Regarding **claim 19**, the above combination Sujasto, Basson et al. in view of Seraj (U.S. Patent Number 6,535,745 B1) are made, the combination according to **claim 18**, teaches of (Suojasto and Basson et al.) estimating the number said mobile stations, which reads on claimed "people", both passive and active mobile stations (see column 2 lines 28-39), in a geographical area, which reads on claimed "region", if interest from the received statistics on the number of said active mobile stations.

However the combination of fails to teach of performing an extrapolating function with said statistics to determine the estimate number of people in the geographic area of interest.

Yang et al discloses in column 2 lines 56-65 an algorithm is used to determine traffic within a cell.

Therefore, at the time of the invention it would have been obvious to a person of ordinary skilled in the art to modify the combination of Sujasto, Basson et al. and Seraj (U.S. Patent Number 6,535,745 B1) to further include Yang et al (U.S. Patent Number 6,192,243 B1) in order to calculate the number of said mobile stations, which reads on claimed "people", within a geographical area based on the said active and passive statistical information.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Peaches whose telephone number is (571) 272-7914. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Randy Peaches  
January 19, 2006

  
CHARLES APPIAH  
PRIMARY EXAMINER